

## **Application Development Specific Principles:**

1. Use the State's SDM for all applicable projects involving development, enhancement, procurement, deployment of applications and systems.
2. Implement IT systems in adherence with all security, confidentiality, and privacy policies and applicable statutes. Act appropriately to protect information confidentiality, integrity, and availability.
3. Applications, systems, and infrastructure that support the anytime/anywhere access to information and services will be given priority over alternate solutions where practical.
4. The boundaries between application component functionality should reflect the way work is accomplished in the business unit. Interfaces between components should reflect business interfaces so there is linkage between the business and IT solutions.
5. Document the design of all application. Object models, service, WSDL, interaction diagrams, and other design artifacts record the structure, behavior, and interfaces of application solutions. These are important deliverables of the development process that can benefit future efforts.
6. Leverage data warehouses to facilitate the sharing of existing information to accelerate and improve decision-making at all levels.
7. Design, acquire, develop, or enhance systems allowing data and processes to be shared and integrated across the enterprise and with our partners.
8. The enterprise architecture must reduce integration complexity to the greatest extent possible.
9. Look to reuse existing applications, systems, and infrastructure before investing in new solutions. Build only those applications or systems that will provide a clear business advantage and demonstrate cost savings.
10. Analyze, simplify and otherwise redesign business processes as appropriate first, then implement new information systems.
11. Applications, systems, and infrastructure will employ reusable components across the enterprise, using an *n-tier* model.
12. The logical design of application systems and databases should be highly partitioned. These partitions must have *logical boundaries* established and must not be violated.
13. The interfaces between separate applications requiring real-time synchronization should be message-based for both internal and external systems.
14. Deploy application systems driven by business events.
15. Applications and systems should be evolving toward an object-oriented approach.
16. Employ consistent software engineering practices and methods based on accepted industry standards.